

## Abarna\_day78

```
#include <stdio.h>
```

```
long long calculate_weight(int *A, int start, int end) {  
    int min_val = A[start];  
    int mid_val = A[start + 1];  
    int max_val = A[end];  
    return (max_val - mid_val) * (mid_val - min_val);  
}
```

```
int main() {  
    int T;  
    scanf("%d", &T);  
  
    while (T--) {  
        int N;  
        scanf("%d", &N);  
  
        int A[N];  
        for (int i = 0; i < N; i++) {  
            scanf("%d", &A[i]);  
        }  
  
        long long total_weight = 0;  
  
        for (int i = 0; i < N - 2; i++) {  
            for (int j = i + 2; j < N; j++) {  
                total_weight += calculate_weight(A, i, j);  
            }  
        }  
  
        printf("%lld\n", total_weight);  
    }  
  
    return 0;  
}
```